

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1 1. (Previously Presented) A method for obtaining information useful for
2 management of a composite e-service, comprising:
3 generating a set of management information for each of a set of service
4 interactions among a set of e-services in the composite e-service, the e-services arranged in a tree
5 structure including a first e-service that provides a portal to the composite e-service;
6 in performing the set of service interactions, at least the first e-service sending a
7 first request to a second e-service at a first lower level of the tree structure, and the second e-
8 service sending a second request to a third e-service at a level of the tree structure lower than the
9 first lower level;
10 transferring the sets of management information up the tree structure to the e-
11 service that provides the portal; and
12 combining the management information at each of a set of levels of the tree
13 structure.

1 2. (Previously Presented) The method of claim 1, further comprising: in performing
2 the set of service interactions, at least the third e-service sending a response to the second e-
3 service in response to the second request, and the second e-service sending a response to the first
4 e-service in response to the first request.

1 3. (Previously Presented) The method of claim 1, wherein each set of management
2 information is contained in a management object.

1 4. (Original) The method of claim 3, wherein the management object has the form
2 of an XML document.

1 5. (Original) The method of claim 1, wherein the step of combining the
2 management information comprises the step of combining the management information using an
3 indicator carried in each set of management information that identifies a service interaction
4 between a client and the portal.

6. (Original) The method of claim 1, wherein the management information includes a time taken by the corresponding e-service to complete a corresponding request.

7. (Original) The method of claim 1, wherein the management information includes an indication of errors that occurred in the corresponding e-service while servicing a corresponding request.

8. (Original) The method of claim 1, wherein the management information includes a set of costs incurred in the corresponding e-service while servicing a corresponding request.

9. (Original) The method of claim 1, wherein the management information includes an indication of security violations that occurred in the corresponding e-service while servicing a corresponding request.

10. (Original) The method of claim 1, wherein the management information includes an indication of resource usage in the corresponding e-service while servicing a corresponding request.

11. (Currently Amended) A composite e-service comprising a set of e-services arranged in a tree structure including a first e-service that provides a portal to the composite e-service, each e-service having a manager such that the managers collectively generate a set of management information for each of a set of service interactions among the e-services and transfer the sets of management information up the tree structure to the first e-service while combining the management information at each of a set of levels of the tree structure, wherein to perform the service interactions, the first e-service to send one or more requests to one or more e-services at a first lower level of the tree structure, and the one or more e-services at the first lower level to send one or more requests to one or more e-services at a second lower level in the tree structure lower than the first lower level.

1 12. (Original) The composite e-service of claim 11, wherein each e-service includes
2 an application that processes the corresponding service interaction while the corresponding
3 manager gathers the corresponding management information.

1 13. (Original) The composite e-service of claim 11, wherein the managers assemble
2 the management information into a set of management objects.

1 14. (Original) The composite e-service of claim 13, wherein each management object
2 has the form of an XML document.

1 15. (Original) The composite e-service of claim 11, wherein the managers combine
2 the management information using an indicator carried in each set of management information
3 that identifies a service interaction between a client and the portal.

1 16. (Original) The composite e-service of claim 11, wherein the management
2 information includes a time taken by the corresponding e-service to complete a corresponding
3 request.

1 17. (Original) The composite e-service of claim 11, wherein the management
2 information includes an indication of errors that occurred in the corresponding e-service while
3 servicing a corresponding request.

1 18. (Original) The composite e-service of claim 11, wherein the management
2 information includes a set of costs incurred in the corresponding e-service while servicing a
3 corresponding request.

1 19. (Original) The composite e-service of claim 11, wherein the management
2 information includes an indication of security violations that occurred in the corresponding e-
3 service while servicing a corresponding request.

20. (Original) The composite e-service of claim 11, wherein the management information includes an indication of resource usage in the corresponding e-service while servicing a corresponding request.

21. (Previously Presented) A system comprising:
a plurality of modules to provide a set of digital services arranged in a tree structure, the digital services comprising at least one of on-line electronic commerce services, on-line news services, on-line sports services, on-line entertainment services, and on-line educational services;
the modules to communicate to enable the digital services to interact,
the modules to generate sets of management information as a result of the interacting of the digital services,
the modules to transfer the sets of management information up the tree structure and to combine the management information at each module as the management information is transferred up the tree structure.

22. (Previously Presented) The system of claim 21, wherein a first one of the digital services is a portal to the set of the digital services.

23. (Previously Presented) The system of claim 22, wherein a first one of the modules associated with the first digital service is adapted to send one or more requests to one or more modules associated with digital services at a first lower level of the tree structure, the one or more modules associated with digital services at the first lower level to send one or more requests to one or more modules associated with digital services at a level in the tree structure lower than the first lower level.

24. (Previously Presented) The system of claim 23, wherein the one or more modules associated with digital services at the level lower than the first lower level are adapted to send one or more responses to the one or more modules associated with digital services at the first lower level, and the one or more modules associated with digital services at the first lower level to send one or more responses to the first module.

1 25. (New) The method of claim 1, further comprising each of the first, second, and
2 third e-services being available over a network and performing at least one of completing tasks,
3 solving problems, and conducting transactions.

1 26. (New) The method of claim 1, further comprising each of the first, second, and
2 third e-services providing at least one of on-line electronic commerce services, on-line news
3 services, on-line sports services, on-line entertainment services, and on-line educational services.

1 27. (New) The method of claim 1, wherein the third e-service is at a second lower
2 level, and wherein in performing the set of service interactions, the third e-service at the second
3 lower level sends a third request to a fourth e-service at a third lower level of the tree structure
4 lower than the second lower level,
5 wherein combining the management information at each of the set of levels of the tree
6 structure comprises combining the management information at the first e-service and at the
7 e-services at the first lower level and second lower level of the tree structure.

1 28. (New) The method of claim 1, wherein the third e-service is at a second lower
2 level, and wherein in performing the set of service interactions, the third e-service at the second
3 lower level sends a third request to a fourth e-service at a third lower level of the tree structure
4 lower than the second lower level.

1 29. (New) The composite e-service of claim 11, wherein each of the first e-service
2 and e-services at the first and second lower levels provides at least one of on-line electronic
3 commerce services, on-line news services, on-line sports services, on-line entertainment services,
4 and on-line educational services.

1 30. (New) The composite e-service of claim 11, wherein to perform the service
2 interactions, the one or more e-services at the second lower level to send one or more requests to
3 one or more e-services at a third lower level of the tree structure lower than the second lower
4 level,

5 wherein the first e-service and at least one e-service at the first lower level and at least
6 one e-service at the second lower level are each adapted to combine the management information
7 received from one or more e-services at lower levels of the tree structure.

1 31. (New) The composite e-service of claim 11, wherein to perform the service
2 interactions, the one or more e-services at the second lower level to send one or more requests to
3 one or more e-services at a third lower level of the tree structure lower than the second lower
4 level.